Electronic Acknowledgement Receipt				
EFS ID:	3288719			
Application Number:	10619796			
International Application Number:				
Confirmation Number:	7886			
Title of Invention:	Sparse and efficient block factorization for interaction data			
First Named Inventor/Applicant Name:	Francis X. Canning			
Customer Number:	20995			
Filer:	Lee W. Henderson/Wayne Mahoney			
Filer Authorized By:	Lee W. Henderson			
Attorney Docket Number:	CANNING.001CP2			
Receipt Date:	12-MAY-2008			
Filing Date:	15-JUL-2003			
Time Stamp:	16:51:15			
Application Type:	Utility under 35 USC 111(a)			

## Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$180
RAM confirmation Number	2140
Deposit Account	111410
Authorized User	KNOBBE MARTENS OLSON AND BEAR

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Pocument Number	g:  Document Description	File Name	File Size(Bytes) /Message Digest	Multi Port / zip	Pages
Number	·		/wessage Digest	Part /.zip	(if appl.)
1 Information Disclosure Statement Letter	IDS_CANNING-001CP2.pdf	74178	no	2	
		1c78b27eb1fb8a8ffc9ea5405d5e2fee6b 38bc87			
Warnings:					
Information:					
2 Fee Worksheet (PTO-06)	fee-info.pdf	8185	no	2	
		03b32cee23c12887abd218e8b2c8e3a ac77e8e7a			
Warnings:	·				
Information:					
		Total Files Size (in bytes):	82363		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

## New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

## National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

## New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.